AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Canceled)

2. (Previously Presented) Control method according to Claim 34, wherein the said variables are a combination of the parameters Ψ and Δ.

3. (Previously Presented) Control method according to Claim 34, wherein the said variables are a combination of trigonometric functions of the parameters Ψ and Δ.

4. (Previously Presented) Control method according to Claim 34, wherein the ellipsometric measurement is one with phase modulation.

Claim 5 (Canceled)

6. (Previously Presented) Control method according to Claim 34, wherein the ellipsometric measurement is carried out using the "rotating polarizer" method.

7. (Previously Presented) Control method according to Clam 6, wherein the measured variables are tan Ψ and cosΔ.

8. (Previously Presented) Control method according to Claim 34, wherein the ellipsometric measurement is a multiwavelength measurement.

9. (Previously Presented) Control method according to Claim 34, wherein the reference values form a theoretically determined path.

10. (Previously Presented) Control method according to Claim 34, wherein the reference values form an experimentally determined path.

11. (Previously Presented) Control method according to Claim 34, wherein the reference values are discrete points corresponding to the instants of fabrication of the thin layers with respect to the time t_0.

12. (Previously Presented) Control method according to Claim 34, wherein the path traveled is adjusted by a polynomial of order between 1 and 5.

13. (Previously Presented) Control method according to Claim 34, wherein the reference values are determined by measurement, using the succession of the following steps:

- measurement of a known layer on a simple substrate;
- measurement of the same known layer on an industrial substrate;

- measurement of the thin-film structure to be controlled.

14. (Previously Presented) Control method according to Claim 2, wherein the ellipsometric measurement is one with phase modulation.

15. (Previously Presented) Control method according to Claim 3, wherein the ellipsometric measurement is one with phase modulation.

Claim 16. (Canceled)

Claim 17. (Canceled)

18. (Previously Presented) Control method according to Claim 2, wherein the ellipsometric measurement is carried out using the "rotating polarizer" method.

19. (Previously Presented) Control method according to Claim 3, wherein the ellipsometric measurement is carried out using the "rotating polarizer" method.

20. (Previously Presented) Control method according to Claim 18, wherein the measured variables are tan Ψ and cos Δ.

21. (Previously Presented) Control method according to Claim 19, wherein the measured variables are tan Ψ and cos Δ.

22. (Previously Presented) Control method according to Claim 2, wherein the ellipsometric measurement is a multiwavelength measurement.

23. (Previously Presented) Control method according to Claim 3, wherein the ellipsometric measurement is a multiwavelength measurement.

24. (Previously Presented) Control method according to Claim 2, wherein the reference values form a theoretically determined path.

25. (Previously Presented) Control method according to Claim 3, wherein the reference values form a theoretically determined path.

26. (Previously Presented) Control method according to Claim 2, wherein the reference values form an experimentally determined path.

27. (Previously Presented) Control method according to Claim 3, wherein the reference values form an experimentally determined path.

28. (Previously Presented) Control method according to Claim 2, wherein the reference values are discrete points corresponding to the instants of fabrication of the thin layers with respect to the time t_0.

29. (Previously Presented) Control method according to Claim 3, wherein the reference values are discrete points corresponding to the instants of fabrication of the thin layers with respect to the time t_0.

30. (Previously Presented) Control method according to Claim 2, wherein the path traveled is adjusted by a polynomial of order between 1 and 5.

31. (Previously Presented) Control method according to Claim 3, wherein the path traveled is adjusted by a polynomial of order between 1 and 5.

32. (Previously Presented) Control method according to Claim 2, wherein the reference values are determined by measurement, using the succession of the following steps:

- measurement of a known layer on a simple substrate;
- measurement of the same known layer on an industrial substrate;
- measurement of the thin-film structure to be controlled.

33. (Previously Presented) Control method according to Claim 3, wherein the reference values are determined by measurement, using the succession of the following steps:

- measurement of a known layer on a simple substrate;
- measurement of the same known layer on an industrial substrate;
- measurement of the thin-film structure to be controlled.

34. (Currently Amended) A method for real-time control of the fabrication of a thin-film structure by ellipsometric measurement, said method comprising:

(a) reflecting a polarized beam of light from a surface of said structure;

(b) ~~measuring the variables I_s and I_c of the reflected beam where $I_s=(\sin 2\Psi \sin\Delta)$ and $I_c=(\sin 2\Psi \cos\Delta)$ or $I_c = \cos 2\Psi$; and~~ measuring real-time control variables representative of the reflected beam, said variables directly linked to an ellipsometric ratio $\rho = \tan \Psi \exp (i\Delta)$;

(c) providing reference values to form a theoretical or experimental path; and

(d) comparing a path traveled by said reflected beam with the reference values,

wherein the said comparison involves the length of the path traveled by said polarized beam of light at a time t in a plane of the variables with respect to an initial point at time t_o for each layer in the thin-film structure.

35. (New) A method according to Claim 4, wherein the measured control variables are, respectively:

$I_s = (\sin 2\Psi \sin\Delta)$ and

$I_c = (\sin 2\Psi \cos\Delta)$ or $I_c = \cos 2\Psi$.

36. (New) A method according to Claim 14, wherein the measured control variables are, respectively:

$I_s = (\sin 2\Psi \sin\Delta)$ and

$I_c = (\sin 2\Psi \cos\Delta)$ or $I_c = \cos 2\Psi$.

37. (New) A method according to Claim 15, wherein the measured control variables are, respectively:

$I_s = (\sin 2\Psi \sin\Delta)$ and

$I_c = (\sin 2\Psi \cos\Delta)$ or $I_c = \cos 2\Psi$.